THERMAL CHARACTERISTICS

Rating	Symbol	Value	Unit
Thermal resistance junction−to−case, for IGBT	$R_{\theta JC}$	0.63	°C/W
Thermal resistance junction−to−case, for Diode	$R_{\theta JC}$	1.71	°C/W
Thermal resistance junction−to−ambient	$R_{\theta JA}$	40	°C/W

ELECTRICAL CHARACTERISTICS (T_J = 25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS						
Collector−emitter breakdown voltage, gate−emitter short−circuited	V_{GE} = 0 V, I_C = 1 mA	BV_{CES}	650	−	−	V

ELECTRICAL CHARACTERISTICS (T_J = 25°C unless otherwise noted) (Continued)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
SWITCHING CHARACTERISTICS, INDUCTIVE LOAD						
Turn−on delay time	T_C = 175°C, V_{CC} = 400 V, I_C = 20 A, R_G = 6 Ω, V_{GE} = 15 V, Inductive Load	t				

TYPICAL CHARACTERISTICS

TYPICAL CHARACTERISTICS

Figure 13. Switching Loss vs. Gate Resistance

Figure 14. Switching Loss vs. Collector Current

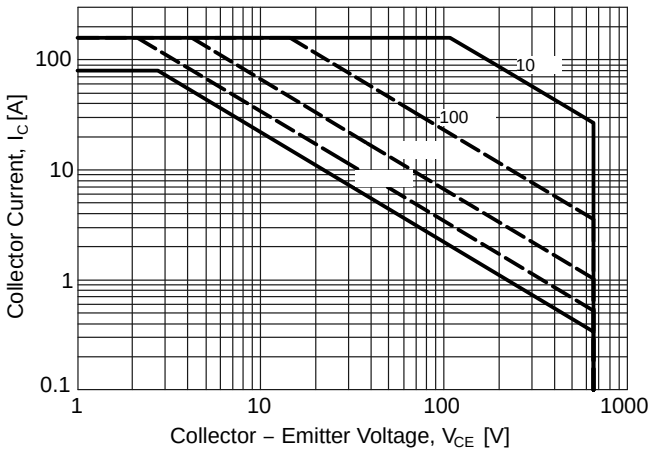
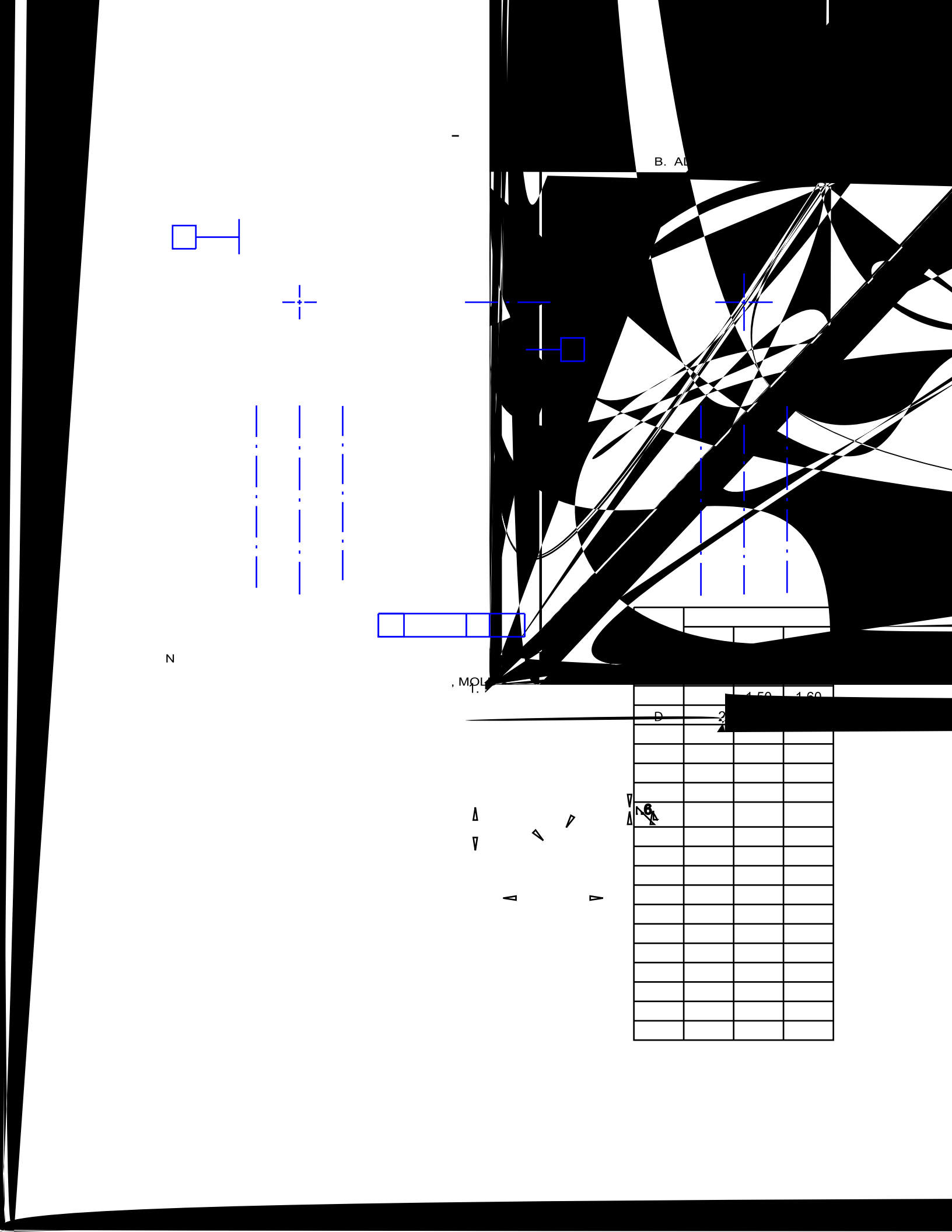


Figure 15. SOA Characteristics


B. Al
N
1.50
1.60
D
3
6